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THE ZOOLOGICAL RECORD

VOLUME 98 SECTION 11 1961

TRILOBITA

COMPILED BY

J. T. TEMPLE, M.A., Ph.D.

LONDON
PUBLISHED BY
THE ZOOLOGICAL SOCIETY OF LONDON

PRICE EIGHT SHILLINGS
1964

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Zhuravleva, I. T. *see* Pokrovskaya, N. V.

II.—SUBJECT INDEX

GENERAL LITERATURE AND HISTORY

General works.—Cyclopygidae of Bohemia, Marek; Middle Ordovician Cheirurina of Oslo, Nikolaisen; Review of Permian invertebrate faunas, Branson; Survey of Siberian M. & U. Cambrian trilobites, Chernysheva (3); Cambrian of Spain, Lotze (1).

Popular works.—Fossils, Kaljo; Natural history of trilobites, Whittington (3).

Bibliography.—Reference to and quotation from two manuscript works (1936 and 1938) of E. V. Lermontova, Ivshin.

Abstracts.—Mirouse & Pillet; Pillet (2); Tomczykowa; Whittington (4).

Reviews.—Treatise, Kramarenko; 40 years of trilobite studies in U.S.S.R., Chernysheva (2).

Check list.—Traverse Group (M. Devonian of Michigan) invertebrates, Stumm.

Catalogue.—Type-specimens of fossils in Japan, Hanzawa et al.

Revision of faunas.—Revision of previous descriptions of Spanish Cambrian trilobites, Szűcs (1).

Revision of nomenclature.—*Lichas araneus* Lindström and *L. aranea* Holzapfel not homonyms. **Opinion 615**; *Sphaerocoryphe dentata* Angelin 1854 designated as type of *Sphaerocoryphe* A.; suppression of *Sphaerometopus* A., **Opinion 614**; *Olenoides convexus* Rasetti 1948 (non Lermontova 1940) renamed *O. rasetti*, *O. granulatus* R. 1948 (non Matthew 1899) renamed *O. canadensis*, Ivshin.

Additions to Official Lists.—*Lichas araneus* Lindström 1885, *L. aranea* Holzapfel 1895, *Radiolichas* Reed 1923, **Opinion 615**; *Sphaerocoryphe* Angelin 1854, *S. dentata* A. 1854, **Opinion 614**.

Designation of type species.—*Sphaerocoryphe* Angelin 1854—designation of *S. dentata* A. 1854, **Opinion 614**.

Selection of neotypes.—*Platycoryphe vulcani* (Murchison), Whittard (1); *Symphysops mitrata* (Novák), Marek.

Selection of lectotypes.—*Acanthoparypha stubblefieldi* (Bancroft), *Atractopyge atractopyge* (M'Coy), *Brongniartella bisulcata* (M'Coy), *B. minor* (Salter), *Kloučekia* (Phacopidina) *harnagensis* (Bancroft), **Dean (1)**; *Aspidaeglina miranda* Holub, *Cyclopyge kosleri* (Klouček), *C. marginata* Hawle & Corda, *C. rediviva* (Barrande), *Heterocyclopyge pachycephala* (H. & C.), *Microparia* (M.) *brachycephala* (K.), *M. (M.) kloučeki* (R. & E. Richter), *M. (M.) speciosa* H. & C., *M. (Degamella) bergeroni* (K.), *M. (D.) gigantea* (B.), *M. (D.) princeps* (B.), *Priocyclopyge binodosa longicephala* (K.), *P. synophthalma* (K.), *Symphysops armata* (B.), *S. sulcata* (B.), **Marek**; *Ectenonotus westoni* (Billings), *Pliomerops canadensis* (B.), *Pseudomera barrandei* (B.), Whittington (2); *Hemiarges pyonurus* (Hall & Clarke), Whittington

(1); *Illaenopsis thomsoni* (Salter), *Stenopareia bowmanni* (S.), Whittard (2); *Metopolichas patriarchus* (Wyatt-Edgell), Whittard (1); *Parabasiliscus powisi* (Murchison), Dean & Dineley; *Tretaspis kiaeri radialis* Lamont, Dean (2).

Preservation.—In Lockport (M. Silurian) of Ontario *Encrinurus*, *Dalmanites* and *Acanthopyge* are usually iron-stained, *Calymene* usually not, Best.

STRUCTURE

Terminology.—*Anteroglabella* (in front of pre-occipital furrow), *posteroglabella* (occipital and pre-occipital lobes), *crenal tongue* (tongue of free cheek between palpebral lobe and retrodivergent anterior facial suture), *geral bar* (longitudinal ridge on fixed cheek): all in *Centropleura*, Öpik (1).

Segmentation.—Segmental alimentary diverticula described on thoracic pleurae, pygidium and cephalon of several Cambrian trilobites; ocular ridges and palpebral lobes considered (probably single though composite) segmental structures; pre-glabella parts of cephalon may bear diverticula and hence are interpreted as pleurae of glabella segments, i.e. not as pre-glabella segments; telson of a new Ptychopariid genus inferred to have lain behind posterior end of pygidial axis, Öpik (2).

Glabella.—In *Paraolenoides* frontal lobe of glabella is drawn up into strong conical process, Ivshin.

Caeca.—Genal caeca interpreted as alimentary; similar structures described on thoracic segments and pygidium of Cambrian trilobites, Öpik (2).

Eyes.—In Cyclopygid genera development of eyes is variable, spp. both with and without anteriorly fused eyes being referred to same genus, Marek; "Nodular areas" on free cheeks of *Barrandia* resemble eyes but are without demonstrable facets, Whittard (2); No visual surfaces apparent on free cheeks of Asaphid protaspides, Evitt.

Palpebral lobes.—Palpebro-ocular ridges of Olenellids and *Papyriaspis* interpreted as a double structure representing probably the two diverticular veins of a single thoracic pleura, Öpik (2).

Genal spines.—*Guizhoucephalina* has both fixigenal and long curved librigenal spines, Chien.

Facial sutures.—Proparian sutures suggested in *Acontheus burkeanus*, Öpik (1); In *Papyriaspis* anterior sutures transgress and posterior sutures are parallel to caecal veins, Öpik (2); Marginal sutures of *Conocoryphe*, *Bailiaspis* and *Bailiella* interpreted as derived from an *Entomaspis*-like condition by fusion of the two branches of facial sutures, Szűzy (2).

Ventral sutures.—Sagittal and hypostomal sutures lacking in earliest Asaphid protaspides but appear subsequently, Evitt.

Hypostome.—Attribution of Cyclopygid hypostomes discussed, Whittard (1).

Vincular notches.—Structures interpreted as such in *Microparia nudus*, Whittard (1); In Cyclopygids, Marek.

Segmental specialisation.—Long pleural spines on 6th thoracic segment of *Atractopyge dentata*, Nikolaisen; In *Centropleura phoenix* 13 anterior thoracic segments have short pleurae, 3 posterior segments have long pleural spines (those on 14th segment longest), Öpik (1).

Pygidium.—Pygidium and three posterior thoracic segments of *Centropleura phoenix* form a rigid non-articulating structure (pygidial unit), Öpik (1); Protopygidium of Asaphid protaspides interpreted as restricted to axis and surrounded by cephalon, Evitt.

Telson.—Inferred from alimentary caeca of a new Ptychopariid genus that anal segment lay behind posterior end of pygidial axis, Öpik (2).

Ornament.—Gill's term prosopon preferred for (demonstrably) functionally significant ornament; external ornament contrasted with impression of alimentary structures on inner surface of test, Öpik (2).

Tubercles.—Analysis of distribution of axial pygidial tubercles in 900 *Encrinurus ornatus* shows closer spacing in carbonate than shale specimens, tubercles considered light-sensitive, Best.

Musculature.—Cephalic muscle-scars of *Ectillaenus perovalis*, Whittard (2).

Alimentary system.—In *Papyriaspis* caeca interpreted as alimentary diverticula described on thoracic segments (propleural vein on anterior band, epistopleural vein on posterior band), pygidia (regular veins of thorax anteriorly, irregular and reticulate posteriorly), cephalon (occipital diverticula corresponding to propleural and epistopleural veins, 3 glabella diverticula arising at glabella furrows and ramifying on fixed cheek, double parafrontal-ocular-palpebral diverticulum giving off the caeca of the pre-glabella area and free cheek); in Agnostids scrobiculation of cephalon (and rarely pygidium) interpreted as coarse branching caeca comparable with diverticula of *Burgessia*; in Olenellids and *Redlichia* a sac-like diverticulum on cheek behind palpebral diverticulum, Öpik (2).

Asymmetry.—Pygidial asymmetry in 5% of *Encrinurus ornatus*, Best; In pygidia of *Glyptagnostus stolidotus* alimentary caecum of left side only is connected with post-axial bulb, Öpik (2).

Teratology.—Hoaled scars in *Centropleura phoenix*, Öpik (1).

PHYSIOLOGY AND SEX

Size.—Suggested that trilobites may have been smaller in warm than in cold water, Spjeldnaes.

Enrolment.—Enrolled individuals of several Cyclopygids illustrated, vincular notches described, Marek.

Blindness.—Two modes of eye-reduction in Proetids (*Waribole*-mode and *Piriproetus*-mode, the latter accompanied by distal migration and straightening of suture and in advanced stages by loss of facets); eye-reduction in Proetids considered a pre-adaptation

during L. Devonian life in nearshore facies to M. & U. Devonian life in dysphotie offshore facies; extinction of Proetids not due exclusively to blindness, **Erben (1)**.

DEVELOPMENT

Ontogeny.—Earliest protaspides of Asaphidae are smooth and subhemispherical with paired anterior and posterior spines, large spinous hypostome, facial suture but no sagittal or hypostomal sutures; subsequently anterior pits and axial furrows appear, hypostome becomes relatively smaller, s. & h. sutures appear, axial protopygidial segments develop; comparison made with similar but more advanced Remopleuridid protaspides; late Asaphid protaspides are not preserved, perhaps due to metamorphosis to early meraspid stages which have markedly different morphology. **Evitt**; Developmental stages of *Paradozoides pradoanus*, *Solenopleuropsis thoralis*, **Sdzuy (2)**; Meraspid stages of *Pricyclopyge binodosa* and *Microparia nudus*, **Whittard (1)**.

EVOLUTION AND CLASSIFICATION

Phylogeny.—Olenelloidea—Redlichioidea—Olenidae—Proetidae, showing two phases of eye-reduction, **Erben (1)**; Polyphyletic nature of Conocoryphidae emphasized, **Sdzuy (2)**; *Balangia* considered a link between Pagetids and some polymerid trilobites, **Chien**.

Evolution.—Cephalic evolution of Encrinurinae, **Hamada**.

Genetics.—Eye-reduction in Proetids a pre-adaptation, **Erben (1)**; In *Encrinurus ornatus* proportions of individuals showing 8-, 7- or 6-ring spacing of first 3 axial pygidial tubercles approximates Hardy-Weinberg law ($a^2 + 2ab + b^2$), suggesting that 4- and 3-spacing of adjacent tubercles were due to alternative genes in an interbreeding community, **Best**.

Classification (principles of).—Generic criteria in Cyclopygidae, the development and degree of fusion of the eyes being considered not important, **Marek**; Six species each of a Cheirurid and of *Ilanus* recognized in a single Ordovician limestone block, **Whittington (4)**.

ECOLOGY AND HABITS

Ecology.—Carbonate specimens of *Encrinurus ornatus* show closer spacing of axial pygidial tubercles than do shale specimens, **Best**; Eye-reduction in Proetids a (pre)adaptation to life in dysphotie offshore facies or to a burrowing habit, **Erben (1)**; Sandy and carbonate facies of Estonian Kunda stage (L. Ordovician), **Männil**; *Centropleura* considered pelagic, **Öpik (1)**; Dollo's interpretation of Cyclopygids as upside-down surface swimmers rejected in favour of their being conventionally-orientated nekton, **Marek**; Six sympatric species at a single locality in each of two Ordovician genera, **Whittington (4)**.

Stratigraphical distribution.—K. J. Müller's 1956 record of Middle Devonian trilobites and Upper Devonian conodonts in the same rock interpreted as being due to U. Devonian fillings of hollows in M. Devonian limestones, **Reichstein**.

Abundance.—15 genera, 75 species, 8 subspecies (all Proetids) have been recorded from Permian, **Branson**.

Vertical ranges.—Only 18 of the 150 known Lower Cambrian genera continue into Middle Cambrian, **Pokrovskaya & Zhuravleva**.

Extinction.—Extinction of Proetids due to failure of adaptation during Carboniferous shrinking of offshore facies; blindness not the exclusive cause of extinction, **Erben (1)**.

Migration.—Bohemian Silurian trilobites in California, **Churkin**.

DISTRIBUTION AND FAUNAS

Cambrian.—China (Kweichow), **Chien**; Korea, Manchuria, **Kobayashi (1)**; Spain, **Lotze (1), (2)**; U.S.S.R., **Borovikov et al.**; U.S.S.R. (Arctic), **Demokidov**; U.S.S.R. (Kazakhstan, Siberia), **Krys'kov et al.**

Cambrian (Lower).—General, **Pokrovskaya & Zhuravleva**; China (Yunnan), **Lu**; Spain, **Sdzuy (1)**; U.S.S.R. (Altai-Sayan), **Zhuravleva et al.**; U.S.S.R. (S. Krasnoyarsk), **Repina**.

Cambrian (Lower & Middle).—U.S.S.R. (Yakutsk), **Chernysheva (1)**.

Cambrian (Middle).—Australia (Queensland), **Carter & Öpik**, **Öpik et al.**; Norway (Finnmark), **Henningsmoen**; Spain, **Sdzuy (2)**; Spain (León), **Comte**; Turkey (Mardin), **Tolun & Ternek**; Turkey (South), **Dean & Krummenacher**; U.S.S.R. (Kazakhstan), Kashmir, **Ivshin**.

Cambrian (Middle & Upper).—Australia (Qld.), **Öpik (1), (2)**; U.S.S.R. (Kazakhstan), **Dobrynin & Sigitova**, **Makarychev**.

Cambrian (Upper).—Malaya (Langkawi I.), **Jones**; U.S.A. (Md., Va.), Canada (Quebec), **Rasetti**; U.S.A. (Wyoming), **Lochman & Hu**.

Ordovician.—Britain, **Whittard (2)**; Czechoslovakia (Bohemia), **Marek**; Lithuania, **Paškevičius (1)**; Newfoundland (West), **Whittington (4)**; Poland, **Tomezyk**.

Ordovician (Lower).—Australia (W. Australia), **Gilbert-Tomlinson (1)**; Estonia (N.W.), **Männil**; Germany (Bavaria), **Sdzuy (3)**; Norway (Finnmark), **Henningsmoen**; U.S.S.R. (Kazakhstan), **Balashova (1)**; U.S.S.R. (Kazakhstan, S. Urals), **Keller & Rozman**; U.S.S.R. (Leningrad, Kazakhstan), **Balashova (2)**; U.S.S.R. (Siberia), **Krys'kov et al.**; Venezuela, **Frederickson**.

Ordovician (Lower & Middle).—Australia (W. Australia), **Gilbert-Tomlinson (2)**; Britain (Shropshire, Wales, etc.), U.S.A. (Va.), **Whittard (1)**; U.S.S.R. (Kazakhstan), **Keller & Bukavishnikova**, **Lisogor**; U.S.S.R. (Yakutsk), **Chugaeva**.

Ordovician (Middle).—Britain (Shropshire), **Dean & Dineley**; Britain (Shropshire etc.), **Dean (1)**; Canada (Quebec, Newfoundland), U.S.A. (Nevada, N.Y.), **Whittington (2)**; France (Loire inférieure), **Cavet & Pillet**; Germany (Rhineland), **Jentsch & Stein**; Norway (Oslo etc.), **Nikolaisen**; Portugal (Douro Litoral), **Curtis**; Spain (Cáceres), **Ramírez**; U.S.A. (Missouri), **Esker**; U.S.A. (Va.), **Evitt**.

Ordovician (Middle & Upper).—Britain (N. England), **Dean (2)**; Czechoslovakia (Prague), **Röhlich**.

Ordovician (Upper).—China (Szechwan), **Cheng & Jian**; Sweden (Scania), **Glimberg**.

Silurian.—Lithuania, **Paškevičius (2)**; Poland, **Tomeczyk**; Spain (León), **Comte**.

Silurian (Lower).—Britain (Scotland), **Rolfe**; Canada (Yukon), **Raasch et al.**; Paraguay (East), **Wolfart**.

Silurian (Middle).—Canada (Ontario), **Best**.

Silurian (? Middle or Upper).—U.S.A. (Calif.), **Churkin**.

Silurian (Middle & Upper).—Czechoslovakia (Prague), **Vaněk**.

Silurian (Upper).—Canada (N.W.T.), U.S.A. (N.Y.), **Whittington (1)**; Czechoslovakia, **Chlupáč (3)**; Paraguay (East), **Harrington**; Poland (Pomerania), **Tomezykowska**; U.S.A. (N.Y.), **Leutze**; U.S.S.R. (Kazakhstan), **Maksimova**.

Devonian.—Czechoslovakia (Prague), **Vaněk**.

Devonian (Lower).—Czechoslovakia, **Chlupáč (3)**; France (Armorican massif), **Pillet (2)**; Paraguay (East), **Harrington**; Portuguese Guinea, **Ferro**; U.S.S.R. (Khabarovsk), **Bobylev & Levitsky**.

Devonian (Lower & Middle).—Germany (Eifel), **Struve**; Germany (Harz), Bohemia, **Lütke**; Mauritania, Germany (Eifel), **Pillet (1)**; U.S.S.R. (Arctic), **Chernov**; U.S.S.R. (Kazakhstan, Altai, Arctic), **Maksimova**.

Devonian (Middle).—Canada (Ontario), **Fagerstrom**; France (Pyrenees), **Mirouse & Pillet**, **Destombes**; Germany (Oberharz), **Alberti**; Spain (León), **Comte**; U.S.A. (Mich.), **Stumm**; U.S.A. (Ohio), **Nickell**.

Devonian (? Middle).—Germany (Thüringia), **Volk**.

Devonian (Middle & Upper).—Germany, **Müller**; Germany (Harz), **Reichstein**; Germany, France, etc., **Erben (2)**.

Devonian (Upper).—Czechoslovakia (Moravia), **Chlupáč (2)**.

Carboniferous.—Thailand, **Kobayashi (2)**.

Carboniferous (Lower).—Czechoslovakia (Moravia), **Chlupáč (1)**; Germany (Schwarzwald), **Sittig**; Spain (Ciudad Real), **Almela et al.**

Carboniferous (Upper).—Poland (Silesia), **Bojkowski**; Spain (Asturias), **Hernández-Sampelayo**.

Permian.—General, **Branson**.

III.—SYSTEMATIC INDEX

N.B.—Since all the species of the group are fossil, the † used elsewhere in the Zoological Record to indicate fossils is here omitted.

Abadiellidae a synonym of **Doleroleninae** p. 540 (258), **Sdzuy (1)**.

Acadagnostus Kobayashi discussed and considered a synonym of **Peronopsis** p. 9, **Ivshin**.

Acanthalomina see **Leonaspis**.

Acanthoparypha projecta sp. n. p. 1241 text-figs. 1 A–B Ordovician (Middle) U.S.A. (Missouri), **A. subcircularis** (Bradley) for **Pseudospaerzochus** s. B. restr. (one paratype excluded) p. 1241, **Esker J. Paleont.** 35 6 1961.

Acanthoparypha stubblefieldi (Baneroff) for **Nieszkowskia** s. B. lectotype chosen and figd. p. 314 pl. xlix figs. 1, 3–6, 11, **A. mutica** (Schmidt) for **Cheirurus (N.) variolaris** m. S. so referred p. 316, **Dean (1)**.

Acanthopyge recorded p. 1030, **Best**.

Acastavinae characters p. 94, **Pillet (1)**.

Acaste downingiae Murch. p. 70, **Paškevičius (2)**.

Acaste cf. **downingiae** Murchison p. 374, **Comte**.

Acastella prima n. sp. [nom. nud.] p. 1006, **Tomezykowska**.

Acastella tiro R. & E. Richter p. 95 pl. i figs. 1–6 text-fig. 1, **A. arlesia** ? R. & E. R. p. 97 pl. i figs. 7–9 text-fig. 2, **Pillet (1)**.

Acastellina nolens n. (R. Richter) p. 299, **Struve**.

Acastidae discussed p. 93, characters of subfams. p. 94, **Pillet (1)**.

Acastinae characters p. 94, **Pillet (1)**.

Acidaspides borealis sp. n. p. 254 pl. liii figs. 9–10 Cambrian (Middle & Upper) U.S.S.R. (Siberia), **Chernysheva** New species of prehistoric plants . . . Part 2, Moscow 1960.

Acmarhachis acuta (Kobayashi) p. 109 pl. xxiii figs. 1–8, **Rasetti**.

Acontheus burkeanus sp. n. p. 135 pl. x figs. 1–7 text-fig. 46 Cambrian (Middle) Australia (Qld.), **Öpik Bull. Bur. Min. Res. Aust. No. 53** 1961.

Acrocephalina reticulata sp. n. p. 123 pl. iv figs. 13–15 text-fig. 3 Cambrian (Upper) China (Kweichow), **Chien Acta palaeont. sinica** 9 2 1961.

Actinopeltis wattisoni sp. n. p. 8 pl. iii fig. 2, pl. iv fig. 1 Ordovician (Middle) Portugal (Douro Litoral), **Curtis Bol. Soc. geol. Portug.** 14 1961.

Aegina bergeroni Klouček type of **Novakella** gen. n. p. 170, **A. hugesii** Hicks a nomen dubium partly referable to **Pricyclopyge binodosa** (Salter) p. 176, **A. grandis** Salter may be synonym of **Microparia nudus** sp. n. p. 182, **Whittard (1)**.

Aeglina princeps Barrande type of *Microparia* (*Degamella*) subgen. n. p. 45, Marek.

Acalatus gen. n. [Olenidae] p. 62 for type *A. cavernosus* sp. n. p. 63 pl. i figs. 7-12, *A. c. ?* p. 65 pl. i fig. 6, *A. ornatus* sp. n. p. 64 pl. i figs. 13-14 Ordovician (Lower) U.S.S.R. (Kazakhstan), Lisogor Trud. geol. Inst. SSSR 18 1961.

Agnostacea see *Blystagnostus* gen. n.

Agnostacea see *Delagnostus* gen. n.

Agnostid gen. and sp. indet. p. 80 pl. x fig. 8, Dean & Krummenacher.

Agnostidae McCoy discussed and classified into Agnostinae and Glyptagnostinae [quae vide] pp. 53, 74, Öpik (1).

Agnostidae discussed p. 521 (239) and interpreted in wide sense to include *Condyllopyge*, *Peronopsis*, *Ciceragnostus* and *Leiaagnostus*, Sdzuy (1).

Agnostids—scrobiculate ornament interpreted as alimentary caeca comparable with those of *Burgessia* p. 412 ff. text-figs. 1-6, Öpik (2).

Agnostids p. 12, Carter & Öpik.

Agnostids p. 14, Öpik et al.

Agnostina—discussion of families p. 52, Öpik (1).

Agnostinae discussed and taken to include Geragnostidae and Micragnostidae pp. 53, 74, *Hastagnostus* referred p. 76, Öpik (1).

Agnostus Brongniart discussed p. 74, *A. sp. E* [misprinted *L* pl. expl.] (*A. cf. neglectus* Westergaard) p. 75 pl. xxiii fig. 7 text-fig. 26 Cambrian (Middle) Australia (Qld.), Öpik (1).

"*Agnostus*" sp. A. p. 527 (245) pl. i fig. 26, "A." sp. B. p. 527 (245) pl. i figs. 27-28 Cambrian (Lower) Spain, Sdzuy (1).

Agnostus ? sp. indet. p. 114 pl. i figs. 10-11, Chien.

"*Agnostus*" sp. p. 44, Männil.

Agraulidae see *Chekiangaspis*.

Agraulidae see *Mungyongia* gen. n.

Agraulinae discussed with key to genera including *Inoyellaspis* gen. n. p. 79; *Anomocare campbelli* King referred to subfam. p. 124, Ivshin.

Agraulinae referred to Ellipsocephalidae and taken to include *Agraulos* and *Proampyz* p. 142, Öpik (1).

Agraulinae see *Inoyellaspis* gen. n.

Agraulos discussed with relations to *Proampyz* [q.v.] to which several spp. referred p. 144, Öpik (1).

Agraulos ceticephalus (Barrande) p. 5 (17), Tolun & Ternek.

Agraulos longicephalus (Hicks 1872) p. 620 (338) pl. xxiii figs. 7-17 text-figs. 32-33, *A. antiquus* sp. n. Cambrian (Middle) Spain (León) p. 623 (341) pl. xxii figs. 17-19, pl. xxiii figs. 1-6, text-fig. 35, Sdzuy Abh. Akad. Wiss. Lit. Mainz [mat.-nat. Kl.] 1961 8.

Agraulos ceticephalus Barrande p. 363, Comte.

Alanisia Hupé discussed and diagnosis modified, *A. hastata* Sdzuy 1958 holotype figd. p. 585 (303) pl. xiii figs. 13-16, pl. xiv figs. 1-7, pl. xvi fig. 17 pars, text-fig. 23, Sdzuy (1).

Aldanaspis venusta sp. n. p. 246 pl. liii fig. 19 Cambrian (Middle) U.S.S.R. (Siberia), Lazarenko New species of prehistoric plants . . . Part 2, Moscow 1960.

Aldonaia Lermontova discussed with synonym *Rinconia* Hupé p. 572 (290), *A. (Protaldonaia)* subgen. n. for type *A. (P.) morenica* sp. n. p. 573 (291) pl. xii figs. 4, ? 5, text-fig. 15 Cambrian (Lower) Spain (Sierra Morena), Sdzuy Abh. Akad. Wiss. Lit. Mainz [mat.-nat. Kl.] 1961 7.

Aldonaiinae discussed and referred to Ellipsocephalidae p. 216, Kobayashi (1).

Alimbetaspis gen. n. [Olenidae] p. 121 for type *A. kelleri* sp. n. p. 122 pl. iii figs. 15-19 Ordovician (Lower) U.S.S.R. (Kazakhstan), Balashova Trud. geol. Inst. SSSR 18 1961.

Alokistocaridae a synonym of Papyriaspidae [q.v.] p. 149, Öpik (1).

Alokistocaridae see *Bolaspidea* gen. n.

Alueva gen. n. [Ellipsocephalinae] p. 583 (301) for type *A. undulata* sp. n. p. 584 (302) pl. xiii figs. 9-12 text-fig. 22 Cambrian (Lower) Spain, Sdzuy Abh. Akad. Wiss. Lit. Mainz [mat.-nat. Kl.] 1961 7.

Amgaspidae discussed p. 88, Chernysheva (1).

Amgaspidae see *Amgaspidella* gen. n.

Amgaspidella gen. n. [Amgaspidae] p. 98 for type *A. elongata* sp. n. p. 99 pl. ix figs. 1-4, *A. c. forma concava* form. n. p. 101 pl. ix figs. 5-6, *A. limbata* sp. n. p. 102 pl. ix figs. 7-8 Cambrian (Middle) U.S.S.R. (Yakutsk), Chernysheva Trud. VSEGEI (ns) 49 1961.

Amgaspis discussed p. 88, *A. medius* Chernysheva 1956 type figd. p. 89 pl. viii figs. 1-9, *A. brevis* T. type figd. p. 93 pl. viii figs. 10-11, *A. rudis* T. type figd. p. 95 pl. ix figs. 9-14, Chernysheva (1).

Amginouyia discussed p. 180, *A. elegans* Chernysheva 1956 type figd. p. 180 pl. xix figs. 11-15, Chernysheva (1).

Amphilichas fryi sp. n. p. 195 pl. xxv figs. 18-19 Ordovician (Middle) Britain (Shropshire), Whittard Palaeontogr. Soc. [Monogr.] 114 (for 1960) 1961.

Amphion julius Billings type of *Colobinion* gen. n. [q.v.] p. 919, Whittington (2).

Amphoton Lorenz discussed with relations of *A. (A.)*, *A. (Fuchouia)*, *A. (Sunia)* [may be synonym of *A.*] and *Dolichometopus* p. 139, *A. bensoni* sp. n. [subgeneric placement uncertain but *A. (A.)* suggested] p. 136 pl. xi figs. 1a-7 text-fig. 47, *A. ? arta* sp. n. p. 141 pl. xiii fig. 10 text-fig. 48, *A. sp. C* [undescribed] p. 43, Cambrian (Middle) Australia (Qld.), Öpik Bull. Bur. Min. Res. Aust. No. 53 1961.

Amphoton discussed p. 83, *A. longus* sp. n. p. 85 pl. vii figs. 9-12 Cambrian (Middle) U.S.S.R. (Yakutsk), Chernysheva Trud. VSEGEI (ns) 49 1961.

Amphoton spinigerum Whitehouse p. 14, A. sp. p. 13, Öpik et al.

Amphoton spinula Kobayashi for *A. darceto* var. s. K. p. 222 pl. xii fig. 19, A. cf. s. pl. xii fig. 18, *A. microlops* K. discussed p. 222, Kobayashi (1).

Ampyx nasutus Dalm. p. 44, Männil.

Ampyx rostratus Sars p. 56, Paikveitius (1).

Ampyxina see Trinucleina gen.

Anadoxides Matthew a synonym of *Metadoxides* Bornemann p. 545 (263), Sdzuy (1).

Andalusiana gen. n. [Olenellidae (Holmiinae)] p. 528 (246) for type *A. cornuta* sp. n. p. 529 (247) pl. iii figs. 1-7 text-fig. 2 Cambrian (Lower) Spain (Sierra Morena), Kjerulfia ? *granulata* Raw also referred, Sdzuy Abh. Akad. Wiss. Lit. Mainz [mat.-nat. Kl.] 1961 7.

Andrarina ouangondiana (Hartt) discussed p. 79, Dean & Krummenacher.

Andrarinidae—relations to Ceratopygidae [q.v.] p. 231, Sdzuy (3).

Angusteva Hupé discussed and referred to Ellipsocephalidae as synonym of *Triangulaspis* p. 512 (230), Sdzuy (1).

Anomocarpaspis gen. n. [Anomocaridae] p. 125 for type *Anomocare hundwarensae* Reed 1934 and including also *A. dimotum*, *novatum*, *perfunctum*, *suspectum* R. spp. p. 125 Cambrian (Middle) Kashmir, Ivshin Middle Cambrian trilobites of Kazakhstan Part I 1953.

Anomocare Angelin 1854 discussed p. 112 ff., lists of referred and excluded spp. p. 126 ff., *A. lemontovae* sp. n. p. 133 pl. viii figs. 1-9, 11, 12 Cambrian (Middle) U.S.S.R. (Kazakhstan); *A. hundwarensae* Reed 1934 type of *Anomocarpaspis* gen. n. to which are also referred *A. dimotum*, *novatum*, *perfunctum*, *suspectum* R. spp. p. 125; *A. arenivagum* Meneghini referred to *Anomocarioides* ? p. 120, *A. campbelli* King 1923 to *Agraulinae* p. 124, *A. conjunctiva* R. 1910 to *Anomocarella* p. 123, *A. difforme* Angelin to *Inoyellaspis* gen. n. p. 83, *A. dikelocephaloidea* K. 1930 to *Koptura* ? p. 124, *A. magnum* Brögger 1878 to *Anomocarioides* ? p. 119, *A. nereis* Walcott 1906 to *Manchuriella* p. 124, *A. persicum* K. 1930 to *M.* p. 124, *A. propinquum* Mansuy 1916 to *Pailaspis* ? p. 124, *A. pusillum* Meneghini to *Anomocarina* ? p. 120, *A. balticum* Hedström 1922 indeterminate p. 120, A. sp. 1 (and perhaps also A. sp. 2 ?) Lermontova 1936 MS. probably referable to *Chondranomocare* p. 121, Ivshin Middle Cambrian trilobites of Kazakhstan Part I 1953.

Anomocare ? *angustum* Whitehouse referred to *Mapania* [q.v.] p. 167, Öpik (1).

Anomocare ? *angustum* Whitehouse may belong to *Proceratopyge* p. 230 n, Sdzuy (3).

Anomocarella — *Anomocare conjunctiva* Reed referred p. 123, Ivshin.

Anomocarella stenorachis sp. n. p. 231 pl. xiii fig. 11, A. cf. *brevifrons* Kobayashi p. 232 pl. xii fig. 9, A. ? gen. and sp. indt. p. 232 pl. xii fig. 22 Cambrian (Middle) S. Korea, Kobayashi J. Fac. Sci. Tokyo Univ. [2] 13 2 1961.

Anomocarellidae accepted for *Anomocarella* and *Mapania* p. 164, Öpik (1).

Anomocaridae—relations with Ceratopygidae [q.v.] p. 231, Sdzuy (3).

Anomocaridae table I, Carter & Öpik.

Anomocaridae see *Anomocarpaspis* gen. n.

Anomocaridae see *Glyphaspellus* gen. n.

Anomocarina Lermontova 1940 discussed p. 117, *Anomocare pusillum* Meneghini tentatively referred p. 120, Ivshin.

Anomocarina obscura sp. n. p. 229 pl. lii figs. 11-12 Cambrian (Middle) U.S.S.R. (Siberia), Chernysheva New species of prehistoric plants . . . Part 2, Moscow 1960.

Anomocarioides Lermontova 1940 discussed p. 137, *A. polymensis* sp. n. p. 140 pl. ix figs. 1-7 Cambrian (Middle) U.S.S.R. (Kazakhstan); *A. ? arenivagum* (Meneghini) and *A. ? magnum* (Brögger) transferred from *Anomocare* pp. 119, 120, Ivshin Middle Cambrian trilobites of Kazakhstan Part I 1953.

Anopolenus see *Centropoleura*.

Antagmopleura subgen. n. see *Chondragraulos*.

Antalasia Hupé a synonym of *Ellipsostrœna* p. 578 (296), Sdzuy (1).

Antatlasinae a synonym of *Ellipsocephalinae* p. 575 (293), Sdzuy (1).

Aojia see *Meisterella* gen. n.

Aojia insignis sp. n. p. 235 pl. i figs. 14-15 Cambrian (Middle) U.S.S.R. (Siberia), Ogienko New species of prehistoric plants . . . Part 2, Moscow 1960.

Apatokephalus discussed p. 76, *A. replicare* Lisogor 1954 [not seen] holotype figd. p. 78 pl. iii figs. 8-13 Ordovician (Lower) U.S.S.R. (Kazakhstan), Lisogor.

Apatokephalus serratus dubius Möberg 1906 p. 129 pl. ii fig. 3, Balashova (1).

Archeops Hupé a synonym of *Saukiandops* [q.v.] p. 205, Kobayashi (1).

Arthrocephalus duyunensis sp. n. p. 117 pl. i figs. 19-20, pl. ii figs. 5-10 Cambrian (Lower) China (Kweichow), Chien Acta palaeont. sinica 9 2 1961.

Asaphellus alimbeticus sp. n. p. 135 pl. ii figs. 4-7 Ordovician (Lower) U.S.S.R. (Kazakhstan), Balashova Trud. geol. Inst. SSSR 18 1961.

Asaphellus ? *inostranzevi* (Lam.) p. 130, Balashova (2).

Asaphid [majority may be *Isotelus*] protaspides and later growth-stages p. 988 pl. cxvii figs. 1-23, pl. cxviii figs. 1-39 text-figs. 1-3, 4-6 (comparison with Remopleuridae), **Evitt**.

Asaphid gen. indet. pp. 28, 29, **Gilbert-Tomlinson** (2).

Asaphid trilobites indet. table, **Gilbert-Tomlinson** (1).

Asaphidae—relations to Ceratopygidae [q.v.] p. 230, **Sdzuy** (3).

Asaphidae p. 158, **Chugaeva**.

Asaphidae p. 1637, **Cavet & Pillet**.

Asaphiscidae see *Tankhella* gen. n.

Asaphiscidae see *Vernaculina* gen. n.

Asaphus gonioecercus Meek—proposed setting aside as type of *Xenostegium* [q.v.], may belong in *Trigonocerca* p. 332, **Ross**.

Asaphus nobilis Barr. p. 422 pl. lxxi fig. A, *A. sp.* p. 420, **Ramirez**.

Asaphus platyrurus Ang. p. 54, *A. cf. cornutus* Dalm. p. 56, **Paškevičius** (1).

Asaphus powisi Murchison referred to *Parabasiliscus* [q.v.] p. 374, **Dean & Dineley**.

Asaphus (A.) raniceps (Dalm.) p. 44, **Männil**.

aff. *Asaphus raniceps* (Dalman) table p. 32, **Gilbert-Tomlinson** (1).

Aspidaeglina Holub 1911 discussed p. 28, *A. miranda* H. lectotype chosen and figd. p. 29 pl. i figs. 18-19, **Marek**.

Aspidaeglina—*Priscyclopyge* [q.v.] may be a synonym p. 172, **Whittard** (1).

Asteropyge laciniatus Roemer p. 409, **Comte**.

Asthenopsis sp. p. 13, **Öpik et al.**

Atractopyge brevicauda (Angelin 1854) p. 296 pl. ii figs. 6-7, *A. dentata* (Esmark 1833) east of lectotype figd. with synonyms *Cybele grewingki* [excluding pygidium—to *A. kutorgae*] and *C. revaliensis* Schmidt 1881 p. 298 pl. iii figs. 1-2, pl. iv figs. 1-4, *A. gracilis* sp. n. Ordovician (Middle) Norway (Oslo, Hadeland) p. 302 pl. iv figs. 5-9, *A. kutorgae* (S. 1881) p. 304 pl. ii figs. 8-9, *A. aff. k.* p. 305 pl. ii fig. 10, *A. sp.* p. 306, **Nikolaissen** Norsk geol. Tidsskr. 41 2-4 1961.

Atractopyge sp. p. 318 pl. xlix fig. 13, *A. atractopyge* (M'Coy) lectotype chosen p. 319, **Dean** (1).

Aulacopleura socialis Poulsen 1934 p. 471 text-figs. 4 (1-9), **Raasch et al.**

Aulacopleura (Paraulacopleura) uralica sp. n. (Maksimova) [undescribed] p. 1487, **Chernov**.

Bailiaspis Resser discussed and divided into two spp.-groups: (1) *elegans* Hartt, *dalmani* Angelin (synonym *bufo* Hicks), *venusta* Resser, *prominens* R., *tuberculata* Lake; (2) *glabrata* A., *nicholasi* L., *inflata* L. p. 675 (393), *B. meridiana* Sdzuy 1958 holotype figd. p. 676 (394) pl. xxxiv fig. 5 text-fig. 53, **Sdzuy** (2).

Bailiaspis dalmani (Angelin) p. 693 (411), **Lotze** (2).

Bailiella Matthew discussed and divided into two spp.-groups: (1) *lyelli* Hicks and *emarginata* Linnarsson; (2) *levyi* Mun.-Chalm. & Berg, and *lantenoi* Mansuy (with synonym *ulrichi* Endo & Resser p. 671n), attribution of *baileyi* Hartt uncertain p. 671 (389), *B. cf. levyi* p. 672 (390) pl. xxxii figs. 8-9, *B. barriensis* Sdzuy 1958 holotype figd. p. 673 (391) pl. xxxiii figs. 1-4, ? 5 text-fig. 52, **Sdzuy** (2).

Balangia gen. n. [Balangiidae] for type *B. balangensis* sp. n. p. 115 pl. i figs. 13-18 Cambrian (Lower) China (Kweichow), **Chien Acta palaeont. sinica** 9 2 1961.

Balangiidae fam. n. [Corynexochida] p. 115 for *Balangia*, **Chien Acta palaeont. sinica** 9 2 1961.

Baltagnostus related to Diplagnostidae p. 53, **Öpik** (1).

Barrandia discussed p. 221, *B. homfrayi* Hicks holotype figd. p. 222 pl. xxxi figs. 6-11, pl. xxxii figs. 1-11, *B. tasgarensis* sp. n. p. 225 pl. xxxiii figs. 1-2, *B. bianularis* sp. n. p. 225 pl. xxxiii figs. 3-5, *B. parabolica* sp. n. p. 225 pl. xxxiii figs. 6-7 Ordovician (Middle) Britain (Shropshire), *B. cordai* (M'Coy) holotype figd. p. 226 pl. xxxiii fig. 8, *B. radians* (M'Coy) holotype figd. p. 227 pl. xxxiii figs. 10-12, *B. cf. r.* p. 227 pl. xxxiii fig. 9, **Whittard** Palaeontogr. Soc. [Monogr.] 115 1961.

Basidechenella see *Dechenella*.

Basocephalus gen. n. [Dorypygidae] p. 60 for type *B. nominalis* sp. n. p. 62 pl. v figs. 8-16, *B. weberi* sp. n. p. 65 pl. v figs. 1-7 Cambrian (Middle) U.S.S.R. (Kazakhstan), **Ivshin** Middle Cambrian trilobites of Kazakhstan Part I 1953.

Bathyholcus gen. n. [Ptychoparioid, affinities obscure] p. 109 for type *B. gaspensis* sp. n. p. 110 pl. xxiii figs. 18-23, text-fig. 1A, *B. sulcatus* sp. n. p. 110 pl. xxiii figs. 24-26 Cambrian (Upper) Canada (Quebec) and U.S.A. (Md.), **Rasetti J. Paleont.** 35 1 1961.

Bathyuricellus discussed p. 68, *B. quadratus* sp. n. p. 70 pl. vii figs. 4-8 Cambrian (Lower) U.S.S.R. (Yakutsk), **Chernysheva** Trud. VSEGEI (ns) 49 1961.

Bathyuricellus firmus sp. n. p. 214 pl. i figs. 5-6 Cambrian (Lower) U.S.S.R. (Siberia), **Ogienko** New species of prehistoric plants . . . Part 2, Moscow 1960.

Bathyurus sp. p. 83 pl. iv fig. 9, **Lisogor**.

Bellaspis billingsi see Undetermined cranidium no. 2.

Beltella sp. p. 94, **Henningsmoen**.

Bergeroniaspis see *Bergeroniellus* group.

Bergeroniellus group for *Bergeroniellus* and *Bergeroniaspis* referred to Paradoxidae p. 98, **Öpik** (1).

Bicornipyge gen. n. [Ceratopygidae] p. 72 for type *B. bicornis* sp. n. p. 73 pl. ii figs. 5-17, pl. iii figs. 1-4 Ordovician (Lower) U.S.S.R. (Kazakhstan), **Lisogor** Trud. geol. Inst. SSSR 18 1961.

Binodaspis discussed p. 246, *B. rara* sp. n. p. 247 pl. vii figs. 1-3 Cambrian (Lower) U.S.S.R. (Yakutsk), Chernysheva Trud. VSEGEI (ns) 49 1961.

Biolgina sp. p. 158, Chugaeva.

Blountia carlotta Lochman excluding DeLand & Shaw 1956 pl. 63 fig. 8 (to *B. aff. B. janei*) and including *Kingstonia* sp. indet. D. & S. p. 132 pl. xxviii figs. 31-48, Lochman & Hu.

Blountia virginica sp. n. p. 110 pl. xxi figs. 1-5, 8 Cambrian (Upper) U.S.A. (Va.), Rasetti J. Paleont. 35 1 1961.

Blystagnostus gen. n. [Agnostacea incertae familiae] for type *B. laciniatus* sp. n. p. 95 pl. xxiii figs. 5-6 text-fig. 34 Cambrian (Middle) Australia (Qld.), Öpik Bull. Bur. Min. Res. Aust. No. 53 1961.

Boeckaspis kasachstanica [altered to *kasachstanicus* by hand in offprint from author] sp. n. p. 119 pl. iv figs. 16-17 Ordovician (Lower) U.S.S.R. (Kazakhstan), Balashova Trud. geol. Inst. SSSR 18 1961.

Boeckaspis sp. p. 94, Henningsmoen.

Boedaspis ? solis (Öpik) p. 44, Männil.

Bolaspidella wellsvillensis (Lochman & Denson) p. 138 pl. xxx figs. 1-5, B. sp. undet. p. 138 pl. xxx figs. 15-16; *B. sp.* Palmer 1955 referred to *Densonella praesemele* p. 139, Lochman & Hu.

Bolaspidella Lermontova gen. n. [Alokistocaridae] p. 241 for type *B. insignis* L. sp. n. p. 242 pl. liii figs. 6-8 Cambrian (Middle & Upper) U.S.S.R. (Siberia), Chernysheva New species of prehistoric plants . . . Part 2, Moscow 1960.

Borthaspidella Rasetti 1954 may be a synonym of *Illanopsis* p. 219, Whittard (2).

Brachymetopina see *Brachymetopus*.

Brachymetopus (Brachymetopina) silvaticus sp. n. p. 230 pl. xxiv figs. 3-7, *B. (nov. subgen. aff. Brachymetopus)* sp. p. 234 pl. xxiv fig. 8 Carboniferous (Lower) Germany (Schwarzwald), Sittig Jh. geol. Land-samt Baden-Württemberg 5 1961.

Brachymetopus uralicus p. 11, Hernández-Sampelayo.

Brassiccephalus jakuticus sp. n. p. 226 pl. liii figs. 12-13, *B. planus* sp. n. p. 227 pl. liii figs. 14-15 Cambrian (Upper) U.S.S.R. (Siberia), Lazarenko New species of prehistoric plants . . . Part 2, Moscow 1960.

Broeggerolithus broeggeri (Bancroft) p. 373 pl. xx fig. 4, Dean & Dineley.

Brongniartella discussed p. 345, *B. bisulcata* (McCoy) so attributed lectotype chosen and figd. p. 346 pl. liv figs. 1-2, 4, 8-9, pl. lv figs. 1, 4, 7, *B. caradociana* sp. n. including *Homalonotus biserratus* Reed 1918 MS. *partim* p. 349 pl. liii fig. 12, pl. liv figs. 3, 5, 7, 10, pl. lv fig. 2, *B. minor* (Salter) for *H. bisulcata* var. β m. S. lectotype chosen with synonym *B. parva* Harper p. 351 pl. liv fig. 6, pl. lv

fig. 11, *B. m. subcarinata* subsp. n. p. 352 pl. lv figs. 6, 8, ? 13, *B. edgelli* (Salter) for *H. e. S.* holotype refigd. p. 353 pl. lv figs. 9, 12, *B. sp.* p. 354 pl. lv fig. 5 Ordovician (Middle) Britain (Shropshire), Dean Bull. Brit. Mus. (nat. Hist.) [Geol.] 5 8 1961.

Brongniartella aff. minor (Salter) p. 374 pl. xx figs. 3, 7, Dean & Dineley.

Bulaspis may belong to Termierellinae p. 213, Kobayashi (1).

Bumastus bouchardi (Barr.) p. 81, Vaněk.

Burmeisteria (Digonus) armoricanus [nom. nud.] p. 218, Pillet (2).

Burmeisteria (Digonus) guineensis sp. n. p. 745 pl. iv figs. 1-6, pl. v figs. 1-7, pl. vi figs. 1-7, pl. vii figs. 1-5, pl. viii figs. 1-4 text-figs. 3-5 Devonian (Lower) Portuguese Guinea, Ferro Garcia de Orta 9 4 1961.

Calliops sp. indet. p. 159, *C. sp.* p. 160, Chugaeva.

Calybole see *Cyrtosymbole*.

Calymene boettneri sp. n. p. 73 pl. i figs. 1-3 Silurian (Upper), *C. sp.* indet. p. 76 pl. iii fig. 4 Devonian (Lower) Paraguay (East), Harrington Contrib. cient. Fac. Cienc. exact. Univ. Buenos Aires [E Geol.] 1 1950.

Calymene boettneri Harrington 1950 diagnosis, horizon dated Silurian (Lower) p. 72 pl. iv figs. 3-5, *C. sp. aff. b.* p. 73 pl. iv figs. 6-7, *C. sp.* p. 71 pl. iv fig. 2, Wolfart.

Calymene aff. carlops Lamont, *C. aff. nodulosa* Shirley, *C. sp.* p. 252, Rolfe.

Calymene (C.) interjecta africana subsp. n. p. 101 pl. ii figs. 1-3 text-fig. 4 Devonian (Lower) Mauritania, Pillet Ann. Fac. Sci. Univ. Dakar 6 1961.

Calymene prenaica Bal. p. 67, *C. blumenbachi* var. *asiatica* Veb. p. 70, Paškevičius (2).

Calymene tristani Brongn., *C. sanmiqueli* Linares, *C. aragoi* Roux, *C. sp.* p. 420 ff., Ramirez.

Calymene recorded p. 1030, *C. glabella* pl. exxiv fig. 12 *pars*, Best.

Calymene sp. p. 1433, Bobylev & Levitsky.

Calymene sp. p. 50 pl. xvi figs. 4-5, Leutze.

Calyptaulaz actonensis sp. n. p. 328 pl. i figs. 11, 13-14, pl. li figs. 1-2 Ordovician (Middle) Britain (Shropshire), *C. (subgen. A)* Struve discussed p. 330, Dean Bull. Brit. Mus. (nat. Hist.) [Geol.] 5 8 1961.

Carbonocoryphe egregia sp. n. p. 229 pl. i fig. 6 Carboniferous (Lower) Czechoslovakia (Moravia), Chlupáč Věstn. Úst. úst. geol. 36 3 1961.

Carolinites popovkiensis sp. n. p. 130 text-figs. 1a-2 Ordovician (Lower) U.S.S.R. (Leningrad), *C.* also recorded from Kazakhstan and N.E. U.S.S.R., Balashova Paleont. Zhurnal 3 1961.

Centroleura Angelin 1854 discussed p. 99, *C. (Anoplenus)* and *C. (Clarella)* discussed p. 101, *Luhops* a junior synonym p. 104, *C. loveni* Angelin and *C. angelini* Westergaard discussed p. 104, *C. oriens* Tschernysheva possibly a synonym of *C. angustata* W. p. 103, *C. phoenix* sp. n. for *C. n.* sp. *Öpik* 1956 p. 105 pl. ii figs. A-C, pl. iii figs. 1-6, pl. iv figs. 1-3b, pl. v figs. A-E, pl. vi figs. A-C, pl. vii figs. 1a-e, 2-6, pl. viii figs. 1-4, pl. xiv fig. 6, text-figs. 35, 37-43, *C. sonax* sp. n. p. 131 pl. ix figs. 1-4c, pl. x fig. 10 text-fig. 44, *C. sp. nov.* [undescribed] p. 48 Cambrian (Middle) Australia (Qld.), *Öpik* Bull. Bur. Min. Res. Aust. 53 1961.

Centroleura sp. pleura with alimentary caeca p. 426 pl. lxxviii figs. 3-4 text-fig. 13, *Öpik* (2).

Centroleuridae discussed and considered independent of Paradoxidae p. 96, *Öpik* (1).

Ceratocephala (*Leonaspis* ?) *semiglabra* Poulsen 1934 pygidium described p. 474 text-figs. 4 (10-18), *Raasch* et al.

Ceratocephala (*Odontopleura*) sp. p. 210, *Volck*.

Ceratonurus krejčii (Novák) p. 83, *Vaněk*.

Ceratopyge forficula [cf. on pl.] Sars 1835 p. 130 pl. iii figs. 5-7, *Balashova* (1).

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Ceratopygidae discussed p. 68, *Lisogor*.

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Changaspis Lee MS. [nom. nud.] [Oryctocephalidae] for type *C. elongata* L. MS. sp. n. p. 118 pl. ii figs. 14-15, *C. micropyge* sp. n. p. 118 pl. ii figs. 11-13 text-fig. 1 Cambrian (Lower) China (Kweichow), *Chien* Acta palaeont. sinica 9 2 1961.

Charchagia lata Troedsson p. 127 pl. v figs. 2-3, *C. sp.* p. 128 pl. v fig. 4, *Chien*.

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Chasmops odini Eichw. p. 56, *C. wesenbergensis* Sehm., *C. eichwaldi* S. p. 57, *Paškevičius* (1).

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Chelururus perlongus Brøgger referred to *Paraceraurus* p. 286, *Nikolaisen*.

Chelururus quenstedti orientalis subsp. n. p. 275 pl. lvi fig. 4 Silurian (Upper) U.S.S.R. (Kazakhstan), *Maksimova* New species of prehistoric plants ... Part 2, Moscow 1960.

Chekiangaspis Lu 1961 [not seen] [Agraulidae], *C. chekiangensis* L. p. 123 pl. iv figs. 11-12, pl. v figs. 8-9 Cambrian (Upper) China, *Chien*.

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Chondranomocare discussed p. 196, *C. bidjensis* Poletaeva 1956 var. *orientalis* var. n. p. 198 pl. xxiv figs. 1-7, pl. xxv fig. 11 pars, *C. eminens* sp. n. p. 200 pl. xxv figs. 3-11, *C. tenuis* sp. n. p. 202 pl. xxv figs. 1-2 Cambrian (Middle) U.S.S.R. (Yakutsk), *Chernysheva* Trud. VSEGEI (ns) 49 1961.

Chondranomocare—*Anomocare* sp. 1 Lermontova 1936 MS. probably referable p. 121, *Ivshin*.

Ciceragnostus Kobayashi discussed, *C. cicer* may be referable to *Pseudophalacroma* p. 92, *Öpik* (1).

Ciceragnostus westergardi Sdzuy 1958 holotype figd. p. 524 (242) pl. ii fig. 9 text-fig. 1, *Sdzuy* (1).

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Comluella Hupé discussed p. 578 (296), **Sdzuy (1)**.

Comura (C.) praecursor sp. n. p. 109 pl. ii fig. 9 text-fig. 9 Devonian (Lower) Mauritania, **Pillet Ann. Fac. Sci. Univ. Dakar 6** 1961.

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Coosella vagrans sp. n. p. 132 pl. xxvi figs. 49–54 Cambrian (Upper) U.S.A. (Wyoming) [see also Genus and Species Undet. 10], **Lochman & Hu J. Paleont. 35** 1 1961.

Coosia sukhianica sp. n. p. 230 pl. lii figs. 1–2 Cambrian (Upper) U.S.S.R. (Siberia), **Chernysheva** New species of prehistoric plants . . . Part 2, Moscow 1960.

Coosia-like cranidium gen. et sp. indt. p. 295, **Jones**.

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Corynexochus ciborium sp. n. p. 215 pl. i figs. 7–9 Cambrian (Middle) U.S.S.R. (Siberia), **Ogienko** New species of prehistoric plants . . . Part 2, Moscow 1960.

Corynexochus cf. *delagei* Miquel 1905 p. 616 (334) pl. xxii figs. 6–7, **Sdzuy (2)**.

Corynexochus tersus sp. n. p. 216 pl. i figs. 10–11 Cambrian (Middle) U.S.S.R. (Siberia), **Lazarenko** New species of prehistoric plants . . . Part 2, Moscow 1960.

Corynexochus see *Corinezechus*.

Cotalagnostus Whitehouse referred to *Hypagnostinae* subfam. n. p. 15, **Ivshin**.

Couloumania Thoral discussed and considered a synonym of *Conocoryphe* Corda p. 659 (377), **Sdzuy (2)**.

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Crepicephalus ? sp. *H* p. 172 pl. xiii fig. 9 text-fig. 57 Cambrian (Middle) Australia (Qld.), **Öpik (1)**.

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Cyclopyge rediviva (Barrande) p. 84, **Glimberg**.

Cyclopyge aff. *rediviva* Barrande p. 1637, **Cavet & Pillet**.

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Degamella subgen. n. of *Microparia* [q.v.] a synonym of *Novakella* Whittard p. 45n, Marek.

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cf. *Delgadella souzai caudata* (Delgado 1904) p. 520 (238) pl. i fig. 10, Szűzy (1).

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Diagnostidae discussed, *Baltagnostus* and *Oedorrhachis* referred p. 69, Öpik (1).

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Dolerolenus diagnosis, *D. formosus* sp. n. p. 542 (260) pl. v figs. 1-18 text-fig. 4, *D. sp.* p. 544 (262) pl. v fig. 19 Cambrian (Lower) Spain (León), Szűzy Abh. Akad. Wiss. Lit. Mainz [mat.-nat. Kl.] 1961 7.

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Dorypyge asturiana Szűzy 1958 holotype figd. p. 617 (335) pl. xxii figs. 8-16 text-fig. 31, Szűzy (2).

Dorypyge olenekensis sp. n. p. 218 pl. i figs. 2-4 Cambrian (Middle) U.S.S.R. (Siberia), Lazarenko New species of prehistoric plants . . . Part 2, Moscow 1960.

Dorypyge table II, Öpik et al.

Dorypygidae see *Basocephalus* gen. n.

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Drepanopygidae fam. n. [Redlichiaacea] for *Drepanopyge* p. 314, Lu Acta palaeont. sinica 9 4 1961.

Drevermannia (*D.*) *asperula* sp. n. p. 477 pl. i fig. 1 Devonian (Upper) Czechoslovakia (Moravia), Chlupáč Věstn. Úst. geol. 36 6 1961.

Dreyfussina provisionally a synonym of *Kloucekia* p. 320, Dean (1).

Dunderbergia variagranula Palmer p. 112 pl. xxiv figs. 10-12, *D. sp. cf. D. v.* p. 112 pl. xxiv figs. 7-9, *D. simplex sp. n.* Cambrian (Upper) U.S.A. (Md.) p. 112 pl. xxiv figs. 1-6 [see also Undetermined pygidium no. 3], **Rasetti** J. Paleont. **35** 1 1961.

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Eurymetopus Postlethwaite & Goodchild 1886 may be a synonym of *Iliaenopsis* [q.v.] p. 219, Whittard (2).

Fabulaspis gen. n. [Familia incerta] p. 152 for type *F. famosus* sp. n. p. 153 pl. xi figs. 1-2 Cambrian (Middle) U.S.S.R. (Kazakhstan), Ivshin Middle Cambrian trilobites of Kazakhstan Part I 1953.

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Fuchouia discussed and considered subgenus of *Amphoton* p. 139, Öpik (1).

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Glyptagnostus discussed with revised diagnosis p. 428, *G. reticulatus* (Angelin) p. 430 pl. lxx figs. 9-11 text-fig. 15, *G. stolidotus* sp. n. p. 432 pl. lxx figs. 1-8 text-fig. 16 Cambrian (Upper) Australia (Qld.), Öpik Palaeontology 3 4 1961.

Glyptagnostus stolidotus Öpik p. 39, Öpik (1).

Glyptometopsis gen. n. [Ptychoparioid, possible affinity with *Lonchocephalidae*] for type *G. tumida* sp. n. U.S.A. (Md.) p. 113 pl. xxiii figs. 27-34 text-fig. 1b, *G. ? marginata* sp. n. Canada (Quebec) p. 114 pl. xxv figs. 12-15 Cambrian (Upper), Rasetti J. Paleont. 35 1 1961.

Goniagnostus nathorsti (Brögger) p. 1424, Dobrynin & Sigitova.

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Guizhoucephalina gen. n. [Ptychopariidae] for type *G. longispina* sp. n. p. 120 pl. iv figs. 1-6, pl. v fig. 1 text-fig. 2 Cambrian (Upper) China (Kweichow), Chien Acta palaeont. sinica 9 2 1961.

Hamatolenus (*H.*) *ibericus* Sdzuy 1958 holotype figd. p. 560 (278) pl. x figs. 12-13, pl. xi figs. 1-4, text-fig. 11, *H. (Lotzeia)* S. discussed p. 563 (281), *H. (L.) lotzei* S. 1958 holotype figd. p. 564 (282) pl. xi figs. 5-12, pl. xii figs. 1-3, text-fig. 12, Sdzuy (1).

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Harpes sp. p. 38, Müller.

Harpides discussed p. 80, *H. rugosus* Sars et Boeck subsp. *conicus* subsp. n. p. 81 pl. iii figs. 6-7 Ordovician (Lower) U.S.S.R. (Kazakhstan), Lisogor Trud. geol. Inst. SSSR 18 1961.

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Hemiarges sp. nov. [undescri.] p. 252, LAMONT in Rolfe.

Hemisphereocoryphe inflatus sp. n. p. 292 pl. i figs. 11-12 [may be subsp. of *H. granulatus* p. 293], *H. sphaericus* (Esmark 1833) neotype figd. p. 293 pl. i fig. 3 Ordovician (Middle) Norway (Oslo); *H. ? rosenhali* Schmidt referred to *Cyrtometopella* gen. n. p. 288, Nikolaisen Norsk geol. Tidsskr. 41 2-4 1961.

Heterocyclopyge gen. n. [Cyclopygidae] for type *Cyclopyge pachycephala* Hawle & Corda 1847 lectotype chosen with synonym *Selenoptychus rotundatus* H. & C.

and including *Aeglina rediviva* of Barrande 1852 *partim* (pl. 34 fig. 4) p. 27 pl. v figs. 9-10 Ordovician (Middle) Czechoslovakia (Bohemia), Marek Rozpr. Úst. úst. geol. 28 1961.

Highgateella Shaw referred to *Eulomidae* p. 236, Sdzuy (3).

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Homagnostus kasachstanicus sp. n. p. 111 pl. i figs. 5-6 Ordovician (Lower) U.S.S.R. (Kazakhstan), Balashova Trud. geol. Inst. SSSR 18 1961.

Homagnostus sp. undet. p. 109 pl. xxiii figs. 9-12, Rasetti.

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Homalonotus rudis M'Coy discussed p. 355 [see also *Brongniartella* and *Platycoryphe*], Dean (1).

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Hypagnostinae subfam. n. [Peronopsidae] p. 15 for *Hypagnostus*, *Cotalagnostus* and *Ecagnostus*, Ivshin Middle Cambrian trilobites of Kazakhstan Part I 1953.

Hypagnostus Jaekel 1909 referred to *Hypagnostinae* subfam. n. and discussed with synonyms *Spinagnostus* Howell, *Cyclopagnostus* H. and *Tomagnostella* Kobayashi p. 17, list of referred spp. pp. 20-21, *H. subulatus* sp. n. p. 21 pl. ix figs. 10-12, 16 Cambrian (Middle) U.S.S.R. (Kazakhstan), Ivshin Middle Cambrian trilobites of Kazakhstan Part I 1953.

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Hypagnostus kendectasicus sp. n. p. 211 pl. i fig. 1 Cambrian (Middle) U.S.S.R. (Kazakhstan), Kryz'kov New species of prehistoric plants . . . Part 2, Moscow 1960.

Hysterolenus discussed p. 69, *H. oblongus* sp. n. p. 70 pl. ii figs. 1-4 Ordovician (Lower) U.S.S.R. (Kazakhstan), Lisogor Trud. geol. Inst. SSSR 18 1961.

Hytricuriscus discussed, *H. antiquus* sp. n. p. 67 pl. i figs. 15-17 Ordovician (Lower) U.S.S.R. (Kazakhstan), Lisogor Trud. geol. Inst. SSSR 18 1961.

Hytricuriscus conicus (Billings) 1859 p. 124 pl. i figs. 12-14, Balashova (1).

Hytricuriscus table p. 30, Gilbert-Tomlinson (1).

Illaenid indet. table, Gilbert-Tomlinson (1).

Illaenopsis Salter 1866 referred provisionally to Nileidae and discussed with probable synonyms *Eurymetopus* Postlethwaite & Goodchild and *Borthaspidella* Rasetti p. 219, *I. thomsoni* Salter lectotype chosen and figd. [with synonyms Trilobite Group C No. 3, ? Group C No. 1 P. 1885, *E. cumbrianus*, ? *E. harrisoni* P. & G. 1886] p. 220 pl. xxxi figs. 3-5, Whittard (2).

Illaenus hispanicus Vern. p. 420, Ramirez.

Illaenus roemeri Volb. p. 57, Paškevičius (1).

Illaenus sp. p. 215 pl. xxx fig. 9; *I. loretzii*, *I. benignensis* and *I. sarkanaensis* synonyms of *Etilliaenus hugheii* [q.v.] p. 215, *I. boumanni* Salter referred to *Stenopareia* p. 217, Whittard (2).

Illaenus sp. p. 159, Chugaeva.

Inikanella Lermontova gen. n. [compared with *Oryctocephalops* and *Cheiruroides*] p. 222 for type *I. gracilis* L. sp. n. p. 223 pl. li figs. 1-3 Cambrian (Middle) U.S.S.R. (Siberia), Lazarenko New species of prehistoric plants ... Part 2, Moscow 1960.

Inoyella sp. gen. n. [Agraullinae] p. 82 for type *I. expectans* sp. n. p. 83 pl. vi figs. 3-4, 6-9, pl. ix fig. 18 para [where spelt *expectus*] Cambrian (Middle) U.S.S.R. (Kazakhstan), *I. difformis* (Angelin) for *Anomocare d. A.*, *I. d. var. chinghizensis* var. nov. [nom. nud.] p. 83, Ivshin Middle Cambrian trilobites of Kazakhstan Part I 1953.

Isocolidae may have lived in dark submarine cavities p. 95, Erben (1).

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Jakutus discussed p. 64, *J. exiguus* sp. n. p. 65 pl. v figs. 9-13 Cambrian (Lower) U.S.S.R. (Yakutsk), Chernysheva Trud. VSEGEI (ns) 49 1961.

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Judomia tera sp. n. p. 212 pl. i figs. 16-17 Cambrian (Lower) U.S.S.R. (Siberia), Lazarenko New species of prehistoric plants ... Part 2, Moscow 1960.

Kainella alimbetica sp. n. p. 128 pl. iii figs. 1-4 Ordovician (Lower) U.S.S.R. (Kazakhstan), Balashova Trud. geol. Inst. SSSR 18 1961.

Kaiseraspis discussed, *K.* sp. p. 82 pl. iii fig. 14, pl. iv figs. 1-2, Lisogor.

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Kassinius gen. n. [Familia incerta] p. 155 for type *K. kassini* sp. n. p. 156 pl. ix figs. 10-14, 18 para, *K. pensus* sp. n. p. 158 pl. ix figs. 15-17, 20, *K. cf. p.* pl. ix figs. 19, 19a Cambrian (Middle) U.S.S.R. (Kazakhstan), Ivshin Middle Cambrian trilobites of Kazakhstan Part I 1953.

Kaufmannia gen. n. [Ceratopygidae] p. 233 for type *K. laeta* sp. n. [may be identical with *Trilobites praevaleus* Barrande 1868 p. 235] p. 234 pl. ii figs. 1, 2, 4 Ordovician (Lower) Germany (Bavaria), Sdzuy Senckenbergiana leth. 42 3-4 1961.

Kawina ? sp. p. 158, Chugaeva.

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Keidelia Harrington & Leanza 1957 a synonym of *Carolinites* Kobayashi p. 295, LOCHMAN-BALK in Harrington et al. [omitted Z.R. 96 11 for 1959].

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Kingstoninae discussed p. 85 [see also *Semisphaerocephalus* and *Semicyclocephalus* gen. n.], Ivshin.

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Kootenia amanoi sp. n. p. 223 pl. xii figs. 25-30, K. cfr. a. pl. xii fig. 31 Cambrian (Middle) S. Korea, **Kobayashi** J. Fac. Sci. Tokyo Univ. [2] 13 2 1961.

Kooteniella discussed p. 113. *K. slatkovskii* (Schmidt 1886) p. 115 pl. xi figs. 1-15, *K. mutabilis* sp. n. p. 119 pl. xii figs. 1-9, *K. m. forma jakutensis* form. n. p. 122 pl. xii figs. 10-11 Cambrian (Middle), *K. acuta* sp. n. p. 123 pl. xiii figs. 1-5 Cambrian (Lower) U.S.S.R. (Yakutsk), **Chernysheva** Trud. VSEGEI (ns) 49 1961.

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Lichas **Dalman** 1827 ruled to be masculine in gender, *L. araneus* **Lindström** 1885 and *L. aranea* **Holzappel** 1895 ruled to be not homonyms and placed on Official List of Specific Names p. 359, **Opinion** 615.

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Litagnostus referred to *Pseudagnostidae* p. 54, **Öpik** (1).

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Lonchocephalus ? vetus sp. n. p. 248 pl. liii fig. 11 Cambrian (Middle) U.S.S.R. (Siberia), **Chernysheva** New species of prehistoric plants . . . Part 2, Moscow 1960.

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Mapania angusta (Whitehouse) p. 13, *Öpik et al.*

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Megalaspis planilimbata Ang. p. 54, *Paškevičius* (1).

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Phacopina itacurubensis Harrington 1950 discussed and considered nom. nud. or dub. p. 78, **Wolfart**.

Phacops (P.) *fecundus* Barrois non Barrande p. 112, **Destombes**.

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Proampyx Frech discussed and taken to include *P. acuminatus* (Angelin), *P. aculeatus* (A.), *P. difformis* (A.) p. 144, *P. agra* sp. n. for *Agraulos* cf. d. of **Opik** 1956 p. 146 pl. xii figs. 1-6b, *P. sp. D* p. 148 pl. x figs. 8-9 Cambrian (Middle) Australia (Qld.), **Opik Bull. Bur. Min. Res. Aust. No. 53** 1961.

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Proceratopyge rotunda sp. n. p. 236 pl. liii figs. 20-22 Cambrian (Middle) U.S.S.R. (Kazakhstan), **Krys'kov** New species of prehistoric plants . . . Part 2, Moscow 1960.

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- Protaldonaia* subgen. n. see *Aldonaia*.
- Protolenidae discussed p. 554 (272), **Sdzuy** (1).
- Protolenidae see *Protaldonaia* subgen. n.
- Protoleninae discussed p. 210 and referred to *Ellipsocephalidae*, **Kobayashi** (1).
- Protolenus orientalis* Picard probably belongs to *Coreolenus* p. 213, **Kobayashi** (1).
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- Protopliomerops speciosus* (Dalman) 1826 p. 138 pl. iii fig. 10, *P. kasachstanicus* sp. n. p. 139 pl. iii fig. 9 Ordovician (Lower) U.S.S.R. (Kazakhstan), **Balashova** Trud. geol. Inst. SSSR 18 1961.
- Protopliomerops* sp. p. 158, **Chugaeva**.
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- Pseudognostus primus* Kobayashi p. 189 pl. xii figs. 20-21, pl. xiii figs. 20-21, **Kobayashi** (1).
- Pseudognostus* sp. p. 1424, **Dobrynin & Sigitova**.
- Pseudanomocarina* discussed p. 187, *P. plana* **Tchernysheva** 1956 type figd. p. 188 pl. xxii figs. 1-10, *P. aciformis* T. 1956 type figd. p. 191 pl. xxiii figs. 10-15, *P. parva* sp. n. p. 193 pl. xxiii figs. 5-9, *P. horrida* sp. n. p. 195 pl. xxiii figs. 1-4 Cambrian (Middle) U.S.S.R. (Yakutsk), **Tchernysheva** Trud. VSEGEI (ns) 49 1961.
- Pseudanomocarina obunca* sp. n. p. 228 pl. lii figs. 13-14 Cambrian (Middle) U.S.S.R. (Siberia), **Lazarenko** New species of prehistoric plants ... Part 2, Moscow 1960.
- Pseudosaphus* n. sp. [undescribed] p. 44, **Männil**.
- Pseudocryphaeus* ? *mesocristata jacqueti* subsp. n. p. 106 pl. i figs. 10, 10a-b text-fig. 7 Devonian (Middle) Mauritania, **Pillet** Ann. Fac. Sci. Univ. Dakar 6 1961.
- Pseudodigonus* subgen. proposed provisionally of *Homalonotus* [q.v.] p. 100, **Pillet** (1).
- Pseudocteraspis* discussed p. 151, *P. aldanensis* **Tchernysheva** 1950 type figd. p. 152 pl. xvii figs. 1-8, **Tchernysheva** (1).
- Pseudolenus* discussed, *P. weggeni* sp. n. p. 556 (274) pl. ix figs. 1-12 text-fig. 9, *P. glaber* sp. n. p. 558 (276) pl. ix figs. 13-17, pl. x figs. 1-3 text-fig. 10 Cambrian (Lower) Spain (Toledo), **Sdzuy** Abh. Akad. Wiss. Lit. Mainz [mat.-nat. Kl.] 1961 7.
- Pseudomera* Holliday 1942 discussed p. 917, *P. barrandei* (Billings 1865) lectotype chosen and figd. p. 918 pl. c figs. 6-8, 10, *P. cf. b.* p. 918 pl. c figs. 9, 11-17, text-figs. 3a-c, *P. billingsi* sp. n. Ordovician (Middle) Newfoundland p. 919 pl. ci figs. 1-9; *P. cf. insolita* of Hintze 1953 excluded from *P.* p. 917, **Whittington** J. Paleont. 35 5 1961.
- Pseudophalacroma* **Pokrovskaya** discussed p. 90, *P. dubium* (Whitehouse) for *Phalacroma* ? d. W. p. 93 pl. xxii figs. 5-10 text-fig. 33, *P. sp. K* p. 94 pl. xxii fig. 11, *P. sp. L* p. 95 pl. xxii fig. 12 Cambrian (Middle) Australia (Qld.), **Öpik** (1).
- Pseudosphaerexochus subcircularis* Bradley restr. referred to *Acanthoparypha* [q.v.] p. 1241, **Esker**.
- Pseudosphaerexochus* sp. p. 316 pl. xlix figs. 2, 7-8, **Dean** (1).
- Pseudoyuepingia* gen. n. [Niobinae] for type *P. modesta* sp. n. p. 126 pl. iii figs. 5-7 Cambrian (Upper) China (Kweichow), **Chien** Acta palaeont. sinica 9 2 1961.
- Psilacella* may form subfam. with *Ellipsotaphrus* p. 59, **Marek**.
- Psilaspis*—*Anomocare propinquum* Mansuy tentatively referred p. 124, **Ivshin**.
- Pteroccephalops acrophthalma* **Rasetti** p. 117 pl. xxiv figs. 13-16, **Rasetti**.
- Pterygomctopus sclerops* (Dalm.), *P. trigonocephala* **Schm.** p. 44, **Männil**.
- Ptychagnostus* **Jaekel** discussed and referred to *Glyptagnostinae* p. 76, *P. (P.)* with synonym *Triplagnostus*, *P. (P.) cassis* sp. n. including *Solenagnostus acuminatus* Whitehouse partim (1936 pl. 8 figs. 13, 15) p. 77 pl. xx figs. 4a-13 text-fig. 27, *P. (P.) aculeatus* (Angelin) p. 80 pl. xxi figs. 3, 4a-b, *P. (Goniagnostus)* with synonym *Doryagnostus* p. 77, *P. (G.) fumicola* sp. n. p. 81 pl. xx figs. 14a-17, pl. xxi fig. 2 text-figs. 28-29, *P. (G.) nathorsti* (Brogger) p. 84 text-fig. 31, *P. (G.)* sp. *P. aff. nathorsti* p. 84 pl. xxi fig. 1 text-fig. 30, *P. sp. O* p. 85 pl. xi fig. 8 Cambrian (Middle) Australia (Qld.), **Öpik** Bull. Bur. Min. Res. Aust. No. 53 1961.
- Ptychagnostus gibbus*, *P. atavus* p. 13, *P. punctuosus* p. 14, **Öpik et al.**
- Ptychagnostus gibbus*, *P. atavus* table I, **Carter & Öpik**.
- Ptychoparia azpeitiae* **Sampelayo** and *P. a.* var. *prolonga* S. considered nomina dub., other *P.* records of S. 1935 and 1943 discussed p. 509 (227) ff., **Sdzuy** (1).
- "*Ptychoparia*" aff. *impar* **Walcott** p. 226 pl. xii figs. 12-13, "*P.*" α sp. indt. p. 227 pl. xii fig. 14, "*P.*" β sp. indt. p. 227 pl. xiii figs. 9-10 Cambrian (Middle) S. Korea, **Kobayashi** (1).
- Ptychoparia magna* sp. n. p. 238 pl. li figs. 10-11 Cambrian (Middle) U.S.S.R. (Siberia), **Tchernysheva** New species of prehistoric plants ... Part 2, Moscow 1960.
- Ptychopariid* (new genus) showing alimentary caeca on pygidium p. 426 pl. lxix fig. 2 text-fig. 14 Cambrian (Upper) Australia (Qld.), **Öpik** (2).
- Ptychopariidae*—*Papyriaspidae* may be subfam. p. 149, **Öpik** (1).
- Ptychopariidae* see *Eospencia* gen. n.
- Ptychopariidae* see *Guizhoucephalina* gen. n.
- Ptychopariidae* see *Ontoella* gen. n.
- Ptychopariidae* see *Sanduspis* gen. n.
- Ptychopariids* p. 12, **Carter & Öpik**.

Ptychoparioid see *Bathyholcus*, *Glyptometopsis* and *Taenicephalites* **genn. n.**

Ptychopyge ? p. 20, Gilbert-Tomlinson (2).

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Quadragnostidae Howell 1935 with synonyms Cycloagnostidae H. and Peronopsidae Westergaard p. 55, *Peronopsis* (with synonym *Quadragnostus*), *Hypagnostus* and *Grandagnostus* referred; *Sulcatagnostus* [to *Pseudagnostidae*], *Baltagnostus* and *Oedorhachis* [both related to *Diplagnostidae*] excluded p. 53, **Öpik (1).**

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Radiolichas Reed 1923 ruled to be masculine in gender and placed on Official List of Generic Names, *R. araneiformis* Tripp 1957 an objective synonym of *Lichas aranea* Holzapel 1895 and placed on Official Index p. 359, **Opinion 615.**

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Redlichaspis Kobayashi discussed p. 206, **Kobayashi (1).**

Redlichia Cosmann discussed with synonyms *Mesodema* and *Latiredlichia* and list of spp. p. 195, grouped into (i) *chinensis* group for *chinensis*, *saitoi*, *paucisegmenta*, *wangi*, and (ii) *nobilis* group for *nobilis*, *kobayashii*, *coreanica*, *cylindrica*, *mai*, *takooensis*, *forresti*, *noellingi*, *idonea* p. 196, *R. forresti* (Etheridge) discussed p. 197, *R. noellingi* (Redlich) discussed p. 198, *R. chinensis* Walcott [with synonyms *verneui* Mansuy, *kingi* Ma, *manchuriensis* Resser & Endo, *murakamii* R. & E., *yunnanensis* E. & R., *endoi* Lu] p. 199 pl. xi figs. 3-6 text-fig. 3a, *R. nobilis* W. with synonym *mansuyi* E. & R. and including c. of King 1937 p. 201 pl. ix figs. 1-8, pl. x figs. 2-6, 8-11, pl. xiii fig. 19, *R. coreanica* Saito holotype figd. p. 203 pl. xi fig. 2, *R. longispinosa* Kobayashi p. 203 text-fig. 3d, *R. mai* Lu p. 203, *R. takooensis* L. with probable synonym *meitanensis* L. p. 204, *R. saitoi* L. p. 204 pl. x fig. 7, *R. cf. cylindrica* Chang p. 204 pl. x fig. 1, *R. paucisegmenta* **sp. n.** Cambrian (Lower) N. Korea for *R. sp. K.* 1935 (pl. 21 fig. 8) p. 205 text-fig. 3c, **Kobayashi** J. Fac. Sci. Tokyo Univ. [2] **13** 2 1961.

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Sanduspis **gen. n.** [Ptychopariidae] for type *S. gracilis* **sp. n.** p. 119 pl. v figs. 5-7 Cambrian (Upper) China (Kweichow), **Chien** Acta palaeont. sinica **9** 2 1961.

Saoinae Hupé a synonym of Solenopleuropsinae Thoral p. 74, **Dean & Krummenacher.**

Saoinae discussed p. 628 (346), **Sdzuy (2).**

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Saukianda andalusiae R. & E. Richter 1940 p. 539 (257) pl. ii fig. 16, **Sdzuy (1).**

Saukiandops Hupé discussed with synonyms *Archaeops* H. and ? *Pararedlichia* H. and considered subgen. of *Neoredlichia* p. 205, Kobayashi (1).

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Schizoproetus onyx (R. Richter) p. 300, form resembling *S. o.* p. 299, Struve.

Schmalenseia spinulosa sp. n. p. 253 pl. liii fig. 18 Cambrian (Upper) U.S.S.R. (Siberia), Lazarenko New species of prehistoric plants . . . Part 2, Moscow 1960.

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Scutellum borealis (Poulsen) 1934 p. 477 text-figs. 5 (6-10), Raasch et al.

Scutellum (*Scabriscutellum*) *elongatum* (Barr.) n. subsp. p. 134 text-fig. 5, *S. (Scab.) billingsi* (Barr.) *billingsi* p. 135 text-fig. 6, *S. (Scab.) furciferum* (H. & C.), *S. (Scab.)* n. sp. A and n. sp. B [undescrib.] p. 126, Lütke.

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Solenagnostus acuminatus Whitehouse *partim* referred to *Ptychagnostus* (*P.*) *cassisi* sp. n. [q.v.] p. 78, Öpik (1).

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Solenopleura Angelin 1854 discussed p. 93, list of referred spp. pp. 100-102, *S. suavis* sp. n. p. 102 pl. vii figs. 1-8, 15, *S. superconveza* sp. n. p. 105 pl. vii figs. 9-14, 16, *S. lata* sp. n. p. 109 pl. vii figs. 21, 21a Cambrian (Middle) U.S.S.R. (Kazakhstan), *S.* sp. Lermontova 1936 MS. pl. vii fig. 20, Ivshin Middle Cambrian trilobites of Kazakhstan Part I 1953.

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Staurocephalus murchisoni Barr. p. 81, **Vaněk**.

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Syndianella gen. n. [Redlichidae] for type *S. yunnanensis* sp. n. p. 313 pl. iii fig. 9 Cambrian (Lower) China (Yunnan), **Lu** Acta palaeont. sinica 9 4 1961.

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Taenicephalites gen. n. [Ptychoparioid, resemblance to *Taenicephalus*] for type *T. macrops* sp. n. p. 118 pl. xxv figs. 1-11 text-fig. 1c Cambrian (Upper) U.S.A. (Md.), Undetermined pygidium no. 7 may belong to *T.* p. 123, **Rasetti** J. Paleont. 35 1 1961.

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Talbotina jeweli Lochman p. 137 pl. xxix figs. 44-46, 51-52, *T.* sp. cf. *T. j.* p. 137 pl. xxix figs. 47-50, **Lochman & Hu**.

Tankhella gen. n. [Asaphiscidae] for type *T. deveza* sp. n. p. 219 pl. xxvi figs. 6-13 Cambrian (Middle) U.S.S.R. (Yakutsk), **Chernysheva** Trud. VSEGEI (ns) 49 1961.

Termierella discussed, *T. sevilana* sp. n. for *T. guadalcanalensis* Sdzuy 1958 nom. nud. p. 569 (287) pl. x figs. 4-7 text-fig. 14 Spain (Sierra Morena), *T.* sp. p. 571 (289) pl. x figs. 8-11 Spain Cambrian (Lower); *T. (Jalonella) celiberica* Hupé a synonym of *Lusatops ribotanus* p. 568 (286), **Sdzuy** Abh. Akad. Wiss. Lit. Mainz [mat.-nat. Kl.] 1961 7.

Termierellinae referred to *Ellipsocephalidae* with synonym *Myopsoleninae*, *Bulacaspis* and *Elganellus* may belong p. 213, **Kobayashi** (1).

Terranovella dorsalis (Hall) with synonyms *Lonchocephalus ospita* Walcott and *T. butsi* Resser p. 118 pl. xxii figs. 7-13, **Rasetti**.

Thaiaaspis gen. n. [Phillipsiidae] p. 1 for type *T. sethaputi* sp. n. p. 2 pl. i figs. 1-5 Carboniferous (? Middle or Upper) Thailand, Kobayashi Japan. J. Geol. Geogr. 32 1 1961.

Thysanopeltis p. 112, Destombes.

Tolanaspis gen. n. [Dorypygidae] p. 66 for type *T. almaematis* sp. n. p. 68 pl. iv figs. 1, 2, 5, *T. angustifrons* sp. n. p. 70 pl. iv figs. 3, 4, 6 Cambrian (Middle) U.S.S.R. (Kazakhstan), Ivshin Middle Cambrian trilobites of Kazakhstan Part I 1953.

Tomagnostella Kobayashi a synonym of *Hypagnostus* p. 19, Ivshin.

Tosotychia gen. n. [Papyriaspidae] for type *T. sors* sp. n. for *Papyriaspis* aff. *lanceola* of Öpik 1956 p. 160 pl. xv figs. 1-7b text-fig. 50 Cambrian (Middle) Australia (Qld.), Öpik Bull. Bur. Min. Res. Aust. 53 1961.

Tretaspis granulata (Wahlenberg) p. 84, Glimberg.

Tretaspis kiaeri Stermer *radialis* Lamont lectotype chosen with synonym *T. moeldenensis* Cave p. 122 pl. vii figs. 7-10, pl. viii figs. 1, 3-5, *T. k. S. duftonensis* subsp. n. p. 125 pl. viii figs. 2, 6-8, *T. convergens* sp. n. p. 127 pl. ix figs. 1-6, *T. cf. ceriodes* (Angelin) *donei* S. p. 129 pl. ix figs. 7-9 Ordovician (Middle & Upper) Britain (N. England), Dean Proc. Yorks. geol. Soc. 33 2 1961.

Treveropyge boopis (R. Richter) ? p. 108 pl. ii figs. 7-8 text-fig. 8, Pillet (1).

Triangulaspis Lermontova—*Angusteva* Hupé a synonym p. 512 (230), Šidny (1).

Triarthrus caecigenus Raymond (type of *Porterfieldia*) holotype figd. excluding provisionally record of Cooper 1953 p. 189 text-figs. 7a-c, *T. (s.l.) convergens* sp. n. Ordovician (Middle) Britain (Shropshire) p. 190 pl. xxiv figs. 16-18; *T. jachalensis* Harrington & Leanza and *T. cf. eatoni* of Bulman 1931 form a generic group with *T. convergens* p. 191, Whittard Palaeontogr. Soc. [Monogr.] 114 (for 1960) 1961.

Triarthrus p. 28, Gilbert-Tomlinson (2).

Trigonocerca—*Asaphus gonicercus* Meek [q.v.] may belong p. 332, Ross.

Trilobites brevifrons Holm 1882 probably referable to *Spirantyz* gen. n. p. 194, Whittard (1).

Trilobites praevalens Barrande 1868 (holotype destroyed) may be identical with *Kaufmannia lauka* gen. et sp. n. p. 235 pl. ii fig. 3 [after B.], Šidny (3).

Trimerus (T.) n. sp. A including with query *Homalonotus* sp. Boettner 1945 p. 78 pl. v figs. 6-8 Silurian (Lower) Paraguay (East), T. ? sp. p. 43, Wolfart Geol. Jb. 78 1961.

Trinia Poletayeva diagnosis p. 221, Kobayashi (1).

Triniinae referred to *Corynexochidae* p. 221, Kobayashi (1).

Trinodus agnostiformis McCoy 1846 p. 113 pl. i figs. 7-8, Balashova (1).

Trinodus tardus (Barrande) p. 84, Glimberg.

Trinodus p. 29, Gilbert-Tomlinson (2).

Trinucleina n. gen. [undescribed—intermediate between *Ampyzina* and *Endymionia* p. 24] p. 28 Ordovician (Middle) W. Australia, Gilbert-Tomlinson (2).

Triplagnostus Howell discussed and considered a synonym of *Ptychagnostus* p. 76, Öpik (1).

Triplagnostus praecurrens (Westergård 1936) p. 46 pl. i figs. 7-14, Chernysheva (1).

Trochurus sp. indet. p. 172 pl. xxxv fig. 7, Churkin.

Tropidocoryphe sp. (n. sp.) [undescribed] p. 126, Lütke.

Tsinania canens (Walcott) pl. xii fig. 8, Kobayashi (1).

Unguliproetus Erben 1951 raised to generic rank p. 85n, Erben (1).

Unguliproetus see *Proetus*.

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Vernaculina gen. n. [Asaphiscidae (Asaphiscinae)] for type *V. flexiosa* sp. n. Cambrian (Upper) U.S.A. (Wyoming) p. 131 pl. xxvii figs. 31-48, *Syspacheilus dunoiensis* Miller partim (pygidium M. 1936 pl. 8 fig. 27) referred to *V.* p. 132, Lochman & Hu J. Paleont. 35 1 1961.

Volonellus gen. n. [Familia incerta] p. 163 for type *V. granulatus* sp. n. p. 164 pl. xi figs. 7-11, 17, pl. vi fig. 13 *pars*, pl. ix fig. 18 *pars*, *V. inflatus* sp. n. p. 166 pl. xi figs. 12-14, 16, *V. magnus* sp. n. p. 168 pl. xi figs. 15, 15a Cambrian (Middle) U.S.S.R. (Kazakhstan), Ivshin Middle Cambrian trilobites of Kazakhstan Part I 1953.

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Waribole-mode of Proetid eye-reduction in *Cyrtosymbole* (W.) and *Unguliproetus* p. 85, Erben (1).

Westergaardites limitis sp. n. p. 121 pl. v fig. 11 Cambrian (Upper) China (Kweichow), Chien Acta palaeont. sinica 9 2 1961.

Wutingaspis Kobayashi discussed, *W. intermedia* Chang a synonym of *W. tingi* K. p. 207, Kobayashi (1).

Wutingaspis malungensis sp. n. p. 312 pl. i figs. 9-10 Cambrian (Lower) China (Yunnan), Lu Acta palaeont. sinica 9 4 1961.

Xenostegium Walcott 1924—proposed that *Megalaspis belemnurus* White be designated type on basis of Walcott's acknowledged misidentification of this as *Asaphus gonicercus* Meek (the originally designated type), *X. g.* discussed and may fit into *Trigonocerca* p. 332, Ross.

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Xiphogonium loveni (Barr.) p. 84, Vaněk.

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Undetermined trilobite p. 94, Henningsmoen.

IV.—ERRATA

Z.R. 84 11 (for 1947).

The article by Prantl, F. (title 40) appeared first in Rozpr. české Akad. [2] 57 1 (for 1947) 1948 and should be so dated.

The article by Prantl, F. & Přibyl, A. (title 42) published in Sborn. Národ. Mus. Praha [B] 3 (for 1947): 1-44 should be dated 1948 as should the included new taxa *Areiinae*, *Cerauroides*, *Eccoptochiloides*, *Oeakaspis*, *Pateraspis*, *Pseudochelirus*, *Staurocephalinae* and *Stubblefieldia*.

Z.R. 96 11 (for 1959).

Bull. Soc. Étud. sci. Angers (ns) 2 (for 1959) appeared in 1960 and the article by Pillet, J. (2) in K. H. Erben et al. should be so dated.

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